

Grammaticalization and Language Acquisition: Interaction of Lexical Aspect and Discourse

Llorenç Comajoan and Manuel Pérez Saldanya

Middlebury College and Universitat de València

1. Grammaticalization

The term *grammaticalization* refers to a theoretical framework in linguistic research and to a type of language change studied within this framework.¹ The type of language change under study was defined by Hopper and Traugott (2003, p. 18) as follows: "Change whereby lexical items and constructions come in certain linguistic contexts to serve grammatical functions and, once grammaticalized, continue to develop new grammatical functions." This type of change is well exemplified in Givón's (1971, p. 413) maxim: "Today's morphology is yesterday's syntax," that is, morphological inflection in language often derives from independent verbs.

The process of grammaticalization is often achieved via routinization and language change mechanisms (Haiman, 1994).² Specifically, the path from lexicon to grammar takes place via reanalysis (rule change) and analogy (rule generalization), and both strategies occur through pragmatic inferencing (Hopper & Traugott, 2003). The incorporation of pragmatics within grammaticalization brings to focus the role of different contexts within discourse and the interaction of speakers in their use of language. This means that what is grammaticalized is not a concrete lexical unit but a unit or structure within a precise morphosyntactic and discursive context. Furthermore, grammaticalization occurs in contexts that can be characterized as highly redundant, since the grammaticalized form emerges in a context that is reinforced by the confluence of several factors: lexical, morphosyntactic, and discursive. The Catalan periphrastic past form exemplifies the redundancy of grammaticalization. This Catalan tense is formed with auxiliary forms that have the verb *anar*, "to go" as its source (cf. the use of similar forms in other languages to form future tenses):³

- (1) a. *go*-past (Periphrastic past): Catalan: (*Jo*) *vaig cantar*. "I sang" (yesterday, two weeks ago).
b. *go*-future: English: *I'm going to sing*.
French: *Je vais chanter*.
Spanish: (*Yo*) *voy a cantar*.

The grammaticalization path from the Catalan verb *anar*, "to go" to a verbal auxiliary resulted in changes at the semantic, syntactic, phonological, and pragmatico-discursive levels. At the semantic level, the grammaticalization implied change from the cognitive domain of space (*anar* as a verb of movement) to the domain of time (*va-* as a marker of perfective preodiernal past). At the syntactic level, recategorization occurred, since the verb *anar* became a verbal auxiliary. Formally, paradigm leveling occurred with the substitution of bisyllabic for monosyllabic forms (*anam* > *vam*, *anats* > *vau*). On the pragmatic level, grammaticalization involved a decrease of textual restrictions and an increase in the frequency of the occurrence of the forms (Pérez-Saldanya, 1998).

The fact that in Catalan the periphrasis with *anar* achieved a perfective past meaning must be explained from the narrative contexts in which the notion of perfectivity emerged, which were reinforced by: a) the tense in which *anar* was inflected (in its origins, a simple past or historical present: both perfective), b) the lexical aspect of the infinitive (in its origins, telic predicates), and c) the type of discursive context in which emerged (narrative sequences that narrate ordered bounded events) (Pérez Saldanya, 1998, Chapter 15).

Grammaticalization has been studied diachronically and synchronically (Hopper & Traugott, 2003) and from the perspective of first (L1) and second (L2) language acquisition (Giacalone Ramat, 1992, 1995; Ziegeler, 1997). Regarding L1 acquisition, Slobin (1994, 2002, in press) noted, on the one hand, the parallels between child acquisition and language evolution ("Does ontogeny recapitulate phylogeny?" Slobin, 2002, p. 376), and, on the other hand, the parallels between language acquisition and diachronic evolution ("Does diachrony recapitulate ontogeny?" Slobin, 2002, p. 380). Slobin (1994, p. 129-130) argued that neither ontogeny recapitulates phylogeny nor diachrony recapitulates ontogeny:

Although the diachronic and ontogenetic developments appear to be parallel, they seem to result from different processes. New meanings of grammatical forms arise in adult language use on the basis of pragmatic inferences drawn from existing referential and propositional meanings. Pre-school-age children are not yet able to draw most of such inferences, and are limited to core semantic concepts and pragmatic functions. With increasing pragmatic and cognitive competence, they are able to comprehend the extended pragmatic meanings intended by older speakers, and come to express these functions in their speech. I propose, then, that children come to discover pragmatic extensions of grammatical forms, but they do not innovate them; rather, these extensions are innovated diachronically by older speakers, and children acquire them through a prolonged developmental process of conversational inference.

Slobin (1994) rejected the possibility that the *processes* of inference in ontogeny (by children) and diachrony (in adults in different generations) were exactly the same, yet he accepted that there may be parallel *results* and that the inferences are present in both cases. Ziegeler (1997) adopted a similar position and provided several examples in which the correspondence between ontogenetic and diachronic processes are evident. One of the examples is the grammaticalization of past meaning, in which one can find a parallel between the diachronic grammaticalization of perfective grams toward past forms (Bybee et al., 1994) and L1 acquisition.

The argument that diachrony recapitulates ontogeny can also be applied to L2 acquisition: It can be hypothesized that the sequence followed by adult L2 learners toward a target language reproduces the diachronic development of a language. This line of argumentation can be exemplified by Giacalone Ramat's (1992, p. 298) question:

Are the channels of grammaticalization the same in both instances, diachrony and language acquisition? There are striking similarities in the paths of change suggesting that the notion of grammaticalization provides a suitable basis for examining both acquisition of grammaticalized semantic relations and the historical development in the same area. Along a grammaticalization scale, the individual learner would start from autonomous lexical elements and step gradually into the grammatical encoding of the target language.

Giacalone Ramat (1992, 1995) confirmed that there were cases in which L2 learners followed a process similar to the diachronic one. For instance, L2 adults learners of Italian used lexical elements like *sempre*, "always," *basta*, "enough," and *finito*, "finished," in order to make aspectual distinctions that were later marked grammatically. Giacalone Ramat (1992) argued that classical grammaticalization differed from L2 acquisitional grammaticalization in adults in that L2 learners do not create new grammatical forms, rather they create approximations to various subsystems of the target language.

In sum, the concomitance between diachronic and acquisitional grammaticalization can be summarized as follows:

- a) In both processes, there is clear contextual dependency. In language evolution (diachrony), grammaticalization emerges in specific syntactic, semantic, and discursive contexts. In L2 acquisition, grammatical encoding emerges in specific contexts as well.

- b) The contexts in which grammaticalization arises have a high degree of redundancy. The new grammatical unit --which either grammaticalizes or is acquired-- emerges reinforced by lexical, syntactic, and pragmatic motivations.
- c) Due to the high level of redundancy, new forms in diachronic and acquisitional grammaticalization emerge in the most prototypical uses of a category and later spread analogically to less prototypical contexts.

2. Second language acquisition of past morphology

2.1. Expression of temporality

Second language acquisition research has shown that at the beginning stages of acquisition, previous to the encoding of temporality with verbal morphology, temporal information is provided by lexical semantics, adverbs, calendric expressions, principles of discursive organization, and overall text structure (von Stutterheim, 1991; for similar conclusions, see Dietrich et al., 1995; Klein, 1994; Meisel, 1987; Noyau, 1990; Sato, 1986; and von Stutterheim & Klein, 1987). These linguistic devices and discursive strategies are used in a systematic pattern, according to which temporality is first expressed by pragmatic devices, then by lexical devices, and finally by grammatical devices (verbal morphology). The three types of temporality devices are associated with other pragmatic, lexical, and grammatical characteristics, and together they provide evidence for three stages of language acquisition: pre-basic variety, basic variety, and post-basic variety (Dietrich et al., 1995).

2.2. Contextual factors in grammaticalization

The contextual factors that intervene in the diachronic grammaticalization of *go*-past in Catalan can also be found in the acquisitional grammaticalization of past morphology. In both cases, grammaticalization occurs because of the close relationship between tense and aspect, on the one hand, and lexical aspect and discourse grounding, on the other.

Research in the L2 acquisition of verbal morphology has focused on hypotheses that attempt to relate the acquisition of past morphology to lexical aspect (Aspect Hypothesis, AH) and discourse grounding in narratives (Discourse Hypothesis, DH).⁴

The AH argues for a close link between grammatical distinctions (perfective and imperfective) and lexical oppositions (the lexico-aspectual characteristics of a predicate) (Andersen & Shirai, 1996: 559).⁵

- (a) Learners will initially restrict past or perfective marking to achievement and accomplishment verbs (those with an inherent end point) and later gradually extend the marking to activities and then states, with states being the last category to be marked consistently.
- (b) In languages with an imperfective marker, imperfective past appears much later than perfective past and then is initially restricted to states and activity predicates, then extended to accomplishments, and finally to achievements

The developmental sequence predicted by the AH is not absolute; that is, it does not predict that the emerging perfective marking exclusively occurs in telic predicates, but rather that there is a tendency to associate emerging perfective markings with telic predicates (see Andersen, 1989 and Andersen & Shirai, 1996 for a discussion of the absolute vs. relative characterization of the hypothesis).

The term *discourse hypothesis* was first used by Bardovi-Harlig (1994), and it is currently used in studies of the acquisition of L2 morphology and its relationship to discourse. Bardovi-Harlig (1994, p. 13) followed research in functional linguistics (Hopper, 1979) and discourse analysis (Dry, 1983) to formulate the hypothesis as follows: "The discourse hypothesis for interlanguage development states that learners use emerging verbal morphology to distinguish foreground from background in narratives."

The definition of foreground and background has been a challenge for researchers in the study of discourse (see; Dry, 1992; Fleischman, 1990; Givón, 1987; Reinhart, 1984). The main problem in trying to define the two concepts is that they are intricately related to other linguistic notions. For instance, Givón (1984) related the foreground-background continuum to tense, sequentiality, durativity, perfectivity, and modality, among other characteristics. Intuitively, the difference between foreground and background refers to a basic distinction between the backbone material of a narrative (the foreground) and the supportive material (the background), as exemplified in the following definition from Hopper & Thompson (1980, p. 280):

That part of a discourse which does not immediately and crucially contribute to the speaker's goal, but which merely assists, amplifies, or comments on it, is referred to as background. By contrast, the material which supplies the main points of the discourse is known as foreground.

In acquisition studies of L2 English, Bardovi-Harlig (1995) analyzed learners' narratives and observed that simple past forms emerged in the foreground. Later in the period of language acquisition, past morphology developed in the foreground as base (or present) forms decreased. In contrast, past morphology in the background emerged later, and it never surpassed the use of past morphology in the foreground. In the same study, it was found that use of past morphology in the foreground surpassed the use of present morphology only when the learners were able to provide past forms in appropriate contexts in 40% of the cases (for the background it was 50%) (see Bardovi-Harlig, 2000 for other relevant studies).

Researchers have considered the possibility that both the AH and the DH hypotheses are closely related inasmuch as telic predicates tend to be in the foreground, where perfective forms occur frequently; whereas imperfective forms tend to be more common in the background: the realm of atelic predicates (Fleischman, 1990; Givón, 1984; Hopper & Thompson, 1980, 1984). In prototype theory (Andersen & Shirai, 1994, 1996), telicity, perfectivity and foreground, on the one hand; and atelicity, imperfectivity, and background, on the other, can be considered two bundles of prototypical features, whereas the combination of features from one and the other would be considered nonprototypical. In this view, the acquisitional sequences hypothesized by the AH and DH are explained by resorting to the notion of prototypicality and a series of cognitive principles that are ultimately explained by discursive motivations (Andersen & Shirai, 1994). In sum, grammaticalization theory and prototype theory give a prominent role to discursive motivations as the source for morphological distinctions.⁶

2.3 Grammaticalization in the acquisition of Catalan L2 morphology

The grammaticalization of past temporality and its relationship to the AH and DH can be examined in the L2 Catalan data from Comajoan (2001). This study investigated the acquisition of the Catalan periphrastic past and imperfect (perfective and imperfective past morphology, respectively) by six learners of Catalan as a foreign language at a U.S. university. The six participants had no previous knowledge of Catalan, but they had extensive knowledge of other Romance languages. The learners' native language were English, Japanese, and Spanish.

The L2 data were collected over a period of two semesters (approximately, 7 months). All six learners participated in the study in the first semester, but only three continued in the second semester. The learning materials used in the classroom were *Digui Digui* (Mas et al., 1991). During the first semester, learners attended the Catalan class three times a week: Two of the sessions followed a communicative approach and were dedicated to the study of language, and the third session was an introduction to Catalan literature. The author of the study taught the language sessions, and a different instructor taught the literature sessions. The lessons covered during the first semester (1-10 of *Digui Digui*) did not provide any explicit instruction of past morphology. However, during the literature sessions, learners were exposed to plenty of natural instances of periphrastic past and imperfect. Form and meaning of past forms were introduced at the beginning of the second semester.

Two types of elicitation tasks were used for the study in Comajoan (2001): video retellings of an 8-minute clip from the movie *Modern Times* and retellings of the narratives in illustrated storybooks. In the following section, some examples from the retellings of one of the storybooks are provided (*The*

Legend of Saint George, Vinyes & Rifà, 1986). The three learners who participated in the study for the two semesters retold the Modern Times narrative a total of four times on four different occasions and the legend of Saint George six times on four different occasions.⁷

For the analysis of the data, all verbal forms in past reference contexts were identified and analyzed for the following categories: form (periphrastic past, imperfect, present, and so on), lexical aspect (state, activity, accomplishment, and achievement), discourse grounding (foreground and background), and appropriateness of use (appropriate, nonappropriate) (see Comajoan, 2001 for details on data coding and analysis).

In order to investigate the process of grammaticalization of L2 past morphology acquisition, the longitudinal production of the same segment of the narrative *The Legend of Saint George* (SG) by one of the participants (Daniel) was analyzed. Each segment includes the material produced by Daniel from the first mention of the knight Saint George until the moment when the knight kills the dragon. For each clause, the verbal form is identified and the following categories are annotated on the right margin: morphological form used by the learner, lexical aspectual category of the verbal predicate, and discourse grounding. The analysis of these variables provided evidence for four stages.⁸

Stage 1. In the first stage of temporality expression, the L2 grammar was minimal, since there were no temporal (present vs. past) nor aspectual (perfective past vs. imperfective past) distinctions. This stage can be observed in the segment produced by Daniel after 2 months and 7 days of learning Catalan.⁹

(2) Daniel, Saint George 1, month 2;7

1. D: #ahm# una home #ahm# a chevai D: #ahm# a man #ahm# on a horse				
2. D: #ahm# <u>ya</u> per #ahm# rescanter-la D: #ahm# goes to #ahm# rescue her	Pres	Acc	F	
3. D: i #ahm# #ahm# #m!# i <u>està</u> preparat <para luchar> [=sp] amb el drac D: and #ahm# #ahm# #m!# and is prepared <to fight> with the dragon	Pres	St	B	
4. D: # #ahm# amb l'espina que #ahm# el el home <u>té</u> D: # #ahm# with the spear that #ahm# the the man has	Pres	St	B	
5. D: #ahm# trata #r# D: #ahm# tries #r#				
6. D: <u>trata</u> de matar #ahm# el drac D: tries to kill #ahm# the dragon	Pres	Act	F	

In (2), Daniel used present tense forms in order to describe past reference situations, regardless of lexical aspect (two states in lines 3 and 4, one accomplishment in line 2, and one activity in line 6) and discourse grounding (foreground in lines 2 and 6, background in lines 3 and 4). At this stage, learners typically follow pragmatic rather than grammatical principles, and this can be seen in the lack of verbal contrasts and the coordination of clauses with *i*, "and." However, if the learner's interlanguage were only guided by pragmatic devices, there would be a preponderance of foreground clauses --which tend to correspond with the main information and that would follow the principle of natural order-- but in (2) Daniel produced foreground and background clauses.¹⁰

The pattern in (2) did not change in the narrative produced by Daniel one week later. In (3), Daniel continued to use present forms for different types of lexical categories and for the two types of discourse grounding, and he still resorted to the other languages that he knew in order to fill in the gaps of his knowledge of Catalan (Spanish: *lucha con*, "fights with," line 4; French, *chevai*, "horse," line 2).

(3) Daniel, Saint George 3, month 2;15

1. D: però també <u>hi ha</u> un #ahm# un home que que D: but also there is a #ahm# a man who who	Pres	St	B
2. D: <u>monta</u> a un chevai #ahm# chevai blanc D: rides a horse #ahm# a white horse	Pres	Act	B
3. D: i <u>té</u> #ahm# una una espina D: and has #ahm# a a spear	Pres	St	B
4. D: i #ahm# <lucha con con> [=sp] #ahm# el drac D: and #ahm# <fight with with> #ahm# the dragon			
5. D: i <u>tira</u> la espina al drac D: and throws [sticks] the spear in the dragon	Pres	Ach	F
6. D: i el drac #ahm# <u>es</u> [=schwa] <u>mort</u> D: and the dragon #ahm# is dead	Pres	St	F

Stage 2. The process of grammaticalization can be studied more closely at the time when past morphology emerges. As predicted by the AH, perfective forms emerged earlier than imperfective forms. At Stage 2, the emergence of perfective forms can be accounted for by discourse and aspectual factors. From a discursive perspective, perfective morphology emerges earlier than imperfective morphology because the foreground is cognitively more salient and more relevant from the speaker's perspective than the background. From an aspectual perspective, present tense forms have imperfective aspect, and thus learners may use them in order to make preliminary aspectual distinctions contrasting perfective morphology (via periphrastic past) and imperfective morphology (present tense forms instead of imperfect).¹¹

When past morphology emerges, the new verbal forms are used in their prototypical uses. Specifically, they are uses in which the grammatical meaning is reinforced by the aspectual meaning of the predicate (lexical aspect) and by the discursive context (discourse grounding). In the case of periphrastic past in Catalan, the perfective value of this form is associated with verbs that refer to a bounded situation (those that are telic) and with narrative sequences. The congruence between telicity and narrative sequences results in a high degree of redundancy, which resembles the diachronic development of Catalan *go*-past forms. Stage 2 can be exemplified by the narrative segment in (4), produced at the end of the fifth month of language learning by Daniel.

(4) Daniel, Saint George 5, month 5;27

1. D: però #ahm# al mateix temps #ahm# el Sant Jordi #ahm# <u>va arribar</u> per rescatar a la princesa D: but #ahm# at the same time #ahm# Saint George #ahm# arrived to rescue the princess	PeP	Ach	F
2. D: i #ahm# <u>va decidir</u> #ahm# de luchar [=sp] amb el drac D: and #ahm# he decided #ahm# to fight with the dragon	PeP	Ach	F
3. D: #ahm# Sant Jordi #ahm# <u>té</u> una espina D: #ahm# Saint George #ahm# has a spear	Pres	St	B
4. D: i #ahm# <u>va</u> #ahm# <u>matar</u> el drac D: and #ahm# killed the dragon	PeP	Acc	F

For the first time in this narrative segment, Daniel used three periphrastic past forms. He used the periphrastic past forms in telic predicates (achievements in lines 1 and 2, accomplishment in line 4), whereas the atelic predicate (state, line 3) was encoded with a present tense form. In addition, the periphrastic past forms in telic predicates occurred in the foreground, whereas the form in the present was in an atelic predicate in the background.

Stage 3. The process of grammaticalization progressed when imperfect morphology emerged and contrasted with periphrastic past. At this point, a distinction between tense and grammatical aspect was established. As was the case for periphrastic past at Stage 2, the use of imperfect was also related to its prototypical uses in predicates that reinforced imperfectivity lexically (states and activities); that is, durative and atelic situations. Imperfect forms also tended to associate with the background of the narrative. This pattern can be observed in (5), produced in the last recording of the Saint George task, during the seventh month of the learning process.

(5) Daniel, Saint George 6, month 7;10

1. D: però a la # ins//+ instant que #ah# el drac #ahm# #ahm# <u>comença</u> a acercar a la princesa D: but in the # mom//+ moment when #ah# the dragon #ahm# #ahm# starts getting closer to the princess	Pres	Ach	B
2. D: #ahm# <u>va arribar</u> un: un #ahm# un #ah#, sí, príncep D: #ahm# arrived a a #ahm# a #ah#, yes, prince	PeP	Ach	F
3. D: i el príncep #ahm# <u>montá</u> //+ <u>montava</u> #ahm# #ahm# el un #ahm# cavall #ah# blanc? D: and the prince #ahm# rod//+ rode #ahm# #ahm# the a #ahm# horse #ah# white?	Imp	Act	B
4. D: i #ahm# el príncep #ahm# <u>va deci</u> //+ <u>va decidir</u> D: and #ahm# the prince #ahm# dec//+ decided	PeP	Ach	F
5. D: que va #ahm# <u>lut</u> //+ <u>luchar</u> ? [=no clear a] [=no r]? D: that he fought [he will fight]			
6. D: lluitar i matar #ahm# el drac per #ahm# la princesa D: [preterite/future auxiliary] to fight and to kill [he will fight and kill] #ahm# the dragon for #ahm# the princess			
7. D: el príncep #ahm# con [=sp] amb amb una, # una vegada #ahm# <u>va esp</u> //+ <u>espinar</u> ? D: the prince #ahm# with with with a, # once #ahm# stuck the dragon	PeP	Ach	F
8. L: va clavar L: nailed			
9. D: oh! <u>va clavar</u> #ahm# el drac D: oh! nailed #ahm# the dragon	PeP	Ach	F

The changes in (5), compared to the previous segments, are twofold. First, the segment was longer and syntactically more complex (e.g., there was more subordination). Second, Daniel contrasted, for the first time in this segment, periphrastic past forms (lines 2, 4, 7 and 9) with imperfect forms (line 3). In this segment, there was still a residue of present forms (line 1). As predicted by the AH and the DH for the early stages of acquisition, the periphrastic past forms occurred in telic predicates and in the foreground, whereas the imperfect forms were in an atelic predicate (activity) in the background.

Stage 4. The grammaticalization process becomes complete once the contextual factors no longer have a preeminent role and the past tenses are used in prototypical and nonprototypical contexts. Regarding lexical aspect, complete grammaticalization implies the use of all types of morphology in all types of aspectual predicates. Regarding discourse, it implies the use of verbal morphology in less prototypical contexts. The data from the segments produced by Daniel indicate that Daniel did not achieve this stage and that his interlanguage did not fully grammaticalize the expression of past temporality, since he did not use any nonprototypical combination of morphology, lexical aspect, and discourse grounding in the segments.¹²

The analysis of the previous narrative segments has shown that Daniel's interlanguage developed and incorporated new verbal forms, and that this process took place following a pattern guided by lexical semantics and discourse. Since prototypical combinations of morphology, telicity, and discourse grounding in native-speaker production data are more frequent than the nonprototypical -- what Andersen & Shirai (1996) labeled the distributional bias in the input-- it could be argued that what learners really do is to reproduce the combinations in the input provided by native speakers. Thus, the learner's task would be to detect in the input the prototypical correlations and adopt them in their interlanguage. However, what distinguishes native speakers from learners is that native speakers have the capacity to modify the correlations and use fewer prototypical combinations, whereas learners are not capable of doing so until they reach high levels of proficiency.

In order to analyze whether learners adopt native speakers' combinations of morphology, telicity, and discourse grounding, the past forms produced by the six learners in Comajoan (2001) were analyzed for appropriateness of use according to aspectual category and grounding (Table 1).¹³

Table 1. Appropriateness of use of Catalan periphrastic past and imperfect forms according to aspectual category and discourse grounding

	Daniel		Barbara		Robert		Julia		Sonia		Mark		Total		
	N	Apr	N	Apr	N	Apr	N	Apr	N	Apr	N	Apr	N	Apr	% Apr
Periphrastic past															
Foreground															
ST	4	4	19	19	11	11	1	1	0	--	0	--	35	35	(100)
ACT	8	8	11	10	17	17	0	--	2	2	0	--	38	37	(97)
ACC	24	24	45	45	56	55	0	--	1	1	0	--	126	125	(99)
ACH	46	46	70	70	93	93	6	5	4	4	0	--	219	218	(100)
Background															
ST	0	--	8	4	4	2	0	--	0	--	0	--	12	6	(50)
ACT	0	--	3	1	2	1	0	--	0	--	0	--	5	2	(40)
ACC	0	--	8	2	3	1	0	--	0	--	0	--	11	3	(27)
ACH	9	0	10	1	8	2	0	--	1	1	0	--	28	4	(14)
Imperfect															
Foreground															
ST	3	0	0	--	0	--	1	0	2	0	0	--	6	0	(0)
ACT	2	1	0	--	0	--	0	--	1	0	0	--	3	1	(33)
ACC	5	0	1	0	1	0	2	0	0	--	0	--	9	0	(0)
ACH	4	2	3	0	1	0	6	0	4	0	0	--	18	2	(11)
Background															
ST	8	8	28	28	29	29	6	6	3	1	0	--	74	72	(97)
ACT	13	12	23	22	14	14	16	16	2	2	3	3	71	69	(97)
ACC	0	--	9	8	23	22	3	3	2	1	0	--	37	34	(92)
ACH	5	2	5	5	2	2	2	2	1	0	0	--	15	11	(73)

Table 1 provides all the forms of periphrastic past and imperfect produced by the learners and shows whether they were used appropriately (Apr) or not. For instance, Daniel produced 9 forms of periphrastic past in achievements in the background, but none of them appropriately (indicated by a 9 and a 0 in the corresponding columns in Table 1). The right column includes the totals for all learners.

Regarding prototypical combinations, the data in Table 1 show that periphrastic past forms in the foreground were almost always used appropriately: Their use fluctuated between 97% in activities and 100% in states and achievements. Imperfect forms in the background were used in appropriate contexts in activities and states (97%) and accomplishments (92%), but less appropriately in

achievements (73%). Regarding nonprototypical combinations, learners did not produce as many as prototypical combinations, and they often used them inappropriately. For instance, in the use of periphrastic past in the background, one can observe an aspectual trend: The use of periphrastic past in states (50%) was higher than in activities (40%), accomplishments (27%), and achievements (14%). Regarding use of imperfect in the foreground, appropriateness of use was low. These data show that learners take advantage of aspectual and discursive redundancy to use verbal forms, and that at a low level of proficiency they produce nonprototypical combinations, but they do not use them in an appropriate context. These attempts at using nonprototypical combinations must not be seen as a failure, but rather as an indication of interlanguage development. In order for learners to encounter enough contexts where they can use nonprototypical combinations of morphology and lexical aspect it is essential that the contexts are created, and for this reason, it is necessary that learners are exposed to rich discursive contexts (Andersen, 2002; Bardovi-Harlig, 1998, 2000; Noyau, 2002).

3. Conclusion

Diachronic and acquisitional grammaticalization are language change processes in which lexical units in specific contexts attain a grammatical status. In L2 acquisition, the grammaticalization process starts at highly redundant contexts and it is this redundancy that justifies that both lexical (aspect) and discursive (grounding) factors intervene in narratives to form bundles of prototypical characteristics (e.g., telicity, foreground, and perfectivity). The application of grammaticalization theory to L2 acquisition data can be fruitful, because it allows us to relate aspectual and discursive factors and integrate them within current research in the AH and DH.

According to Slobin (1994, p. 128), the parallels between child language development and diachronic evolution are "useful" but "illusory," since the motivation for one type of change and the other are different. For Slobin (1994), the grammaticalization process in L1 acquisition is motivated by cognitive factors: Cognitive limitations predispose children to notice notions that are "cognitively most simple, natural, and accessible." For instance, the coding of notions such as present relevance of past events (perfect of experience) is difficult to handle by children at an early age.

Adults do not have these cognitive limitations, and according to Slobin (1994) they use metaphorical and metonymic mechanisms in order to extend basic meanings; that is, the grammaticalization process in adults is based on pragmatics rather than cognitive limitations. Grammaticalization in L2 acquisition needs to be explained by resorting to both types of explanations. On the one hand, adult L2 learners, specially at the beginning stages of acquisition, have important cognitive limitations related to attention and memory (Robinson, 2003), and, on the other hand, adult learners can resort to metaphoric and metonymic processes from their L1 and general knowledge.

Adult L2 learners, due to limitations in their allocation of attention and memory, may not be able to detect nonprototypical combinations in the input, and thus they do not produce them until they have mastered the prototypical combinations. In this view, at the initial stages of acquisition, adult L2 learners cannot detect pragmatic uses that are most marked (e.g., combinations of imperfective morphology in telic predicates, pragmatic uses of imperfect), and they limit themselves to the combinations that are most accessible and redundant. In other words, adult L2 learners perceive and codify more easily those contexts in which the abstract grammatical value of new forms is reinforced by lexical factors (which are easier to notice and less abstract) and discursive factors (inherent in any language interaction between adults).

Notes

¹. See Heine (2003) for a difference of opinion on the terminology of *grammaticalization*.

². See Hopper & Traugott (2003, p. xv) on the potential misconception in using *process* to refer to grammaticalization.

³. Catalan morphologically marks the distinction between perfective and imperfective aspect in the past by way of imperfect and periphrastic past forms, respectively. The imperfect forms are formed by adding imperfect endings to the stem of the verb. Catalan periphrastic past forms, however, radically differ from other Romance languages because they are formed with grammaticalized form of the auxiliary *anar*, "to go" followed by an

infinitive. In addition, Catalan also has a set of nonperiphrastic perfective forms that are used in speech and informal style only in some varieties of the Balearic and Valencian dialects.

⁴ See Bardovi-Harlig (2000) and Salaberry and Shirai (2002) for details on the AH and DH.

⁵ The Aspect Hypothesis in its standard formulation has four statements. Only two are included here because the other two make reference to progressive morphology, which is not the focus of this paper. See Andersen and Shirai (1996) and Bardovi-Harlig (2000) for a discussion of the four statements in the hypothesis.

⁶ Grammaticalization theory and prototype theory coincide in their functional-cognitive approach to language study and categorization. Grammaticalization theory is discussed in this paper because it has been used in diachronic, synchronic, and acquisition research.

⁷ The conditions for the six Saint George retellings were slightly different. For the first retelling of the Saint George narrative (SG1), the participants were given the storybook and were asked to retell the story without a prompt or any other type of information. Afterwards, in the same session, in order to make sure that they understood the story, the researcher told the story in the past following a script with a balanced number of past periphrastic and imperfect forms (13 for each type). During the same session, after the researcher told the story, the learners produced the second retelling of Saint George (SG2). In the third retelling of the Saint George narrative (SG3), the learners were given the prompt *Una vegada hi havia un drac monstruós que vivia en un poble* "Once upon a time there was [Imperfect] a monstrous dragon that lived [Imperfect] in a village" in order to elicit past contexts. For the fourth retelling of Saint George (SG4), the subjects were provided the prompt, and they retold the story. In the same session, the researcher told the story following the script, and the subjects produced the fifth retelling of the story (SG5). Finally, in the sixth retelling (SG6), the subjects retold the story without prompt and without the researcher's input. Thus, the format for the fourth retelling of Saint George approximately mirrored the third one, and the conditions for the fifth retelling approximately mirrored the second retelling.

⁸ The term *stage* is used in a broad descriptive sense here to refer to the periods of time in which Daniel used different devices to express temporality. See Ingram (1989) for a discussion of the term *stage* in language acquisition.

⁹ The transcription codes in the narrative data are as follows. Pause is indicated by #. Longer pauses are indicated by more symbols: ##, ###, and so on. //+ indicates that the word is unfinished and will be reformulated. +/- indicates interruption by the listener. ++ indicates the listener's intervention. Thus, material marked with +/ and ++ overlaps. Confirmation and/or hesitation is indicated by #ahm#, #ah#, #m#, #mhm#, #aha#. Square brackets with an equal sign inside provide information about the immediately previous utterance. When the information refers to more than the previous word, the affected words are inside < >. The information can be about pronunciation, language (sp=Spanish, en=English, fr=French), emotion, and so on. The verbal forms of the analyzed verbal predicates are underlined. The abbreviations for the lexical categories, discourse grounding, and morphology are St (state), Act (activity), Acc (accomplishment), Ach (Achievement), F (foreground) B (background), Pres (present), PeP (periphrastic past), and Imp (imperfect).

¹⁰ When all of the clauses in the narrative were examined, there were more foreground than background clauses (Comajoan, 2001).

¹¹ Camps (2002) found that L2 learners of Spanish used present and preterite forms in similar proportions in contexts where an imperfect was required.

¹² It must be noted, however, that Daniel used nonprototypical combinations in other narratives at an earlier time (see Comajoan, 2001).

¹³ Appropriateness of *use* refers to the use of a past form in an appropriate context, that is, a perfective form in a perfective context and an imperfective form in an imperfective context, regardless of whether the form is well formed or not. For instance an L2 form like *telled* used in a past context would be considered appropriate regardless of its nontargetlike form. Similarly, a Catalan L2 form like *compria* (the targetlike form is *comprava*) used in an imperfective context was considered appropriately used even though it was not well formed.

References

- Andersen, R. W. (1989). La adquisición de la morfología verbal. *Linguística*, 1, 90-142.
- Andersen, R. W. (2002). The dimensions of pastness. In R. Salaberry & Y. Shirai (Eds.), *The L2 acquisition of tense-aspect morphology* (pp. 79-105). Philadelphia: Benjamins.
- Andersen, R. W., & Shirai, Y. (1994). Discourse motivations for some cognitive acquisition principles. *Studies in Second Language Acquisition*, 16, 135-156.
- Andersen, R. W., & Shirai, Y. (1996). The primacy of aspect in first and second language acquisition: The pidgin-creole connection. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 527-570). San Diego, CA: Academic Press.

- Bardovi-Harlig, K. (1994). Anecdote or evidence? Evaluating support for hypotheses concerning the development of tense and aspect. In S. Gass, A. Cohen, & E. Tarone (Eds.), *Research methodology in second language acquisition* (pp. 41-60). Hillsdale, NJ: Lawrence Erlbaum.
- Bardovi-Harlig, K. (1995). A narrative perspective on the development of the tense/aspect system in second language acquisition. *Studies in Second Language Acquisition*, 17, 263-291.
- Bardovi-Harlig, K. (1998). Narrative structure and lexical aspect: Conspiring factors in second language acquisition of tense-aspect morphology. *Studies in Second Language Acquisition*, 20, 471-508.
- Bardovi-Harlig, K. (2000). *Tense and aspect in second language acquisition: Form, meaning, and use*. Malden, MA: Blackwell.
- Bybee, J., Perkins, R., & Pagliuca, W. (1994). *The evolution of grammar. Tense, aspect, and modality in the languages of the world*. Chicago: The University of Chicago Press.
- Camps, J. (2002). Aspectual distinctions in Spanish as a foreign language: The early stages of oral production. *IRAL*, 40, 179-210.
- Comajoan, L. (2001). *The acquisition of Catalan L2 past morphology: Evidence for the aspect and discourse hypotheses*. Unpublished doctoral dissertation, Indiana University, Bloomington.
- Dietrich, R., Klein, W., & Noyau, C. (1995). *The acquisition of temporality in a second language*. Philadelphia: Benjamins.
- Dry, H. A. (1983). The movement of narrative time. *Journal of Literary Semantics*, 12, 19-53.
- Dry, H. A. (1992). Foregrounding: An assessment. In S. J. J. Hwang & W. R. Merrifield (Eds.), *Language in context: Essays for Robert E. Longacre* (pp. 435-450). Arlington, TX: The Summer Institute of Linguistics and the University of Texas at Arlington.
- Fleischman, S. (1990). *Tense and narrativity: From medieval performance to modern fiction*. Austin, TX: University of Texas Press.
- Giacalone Ramat, A. (1992). Grammaticalization processes in the area of temporal and modal relations. *Studies in Second Language Acquisition*, 14, 297-322.
- Giacalone Ramat, A. (1995). Iconicity in grammaticalization processes. In R. Simone (Ed.), *Iconicity in language* (pp. 119-139). Philadelphia: Benjamins.
- Givón, T. (1971). Historical syntax and synchronic morphology: An archaeologist's field trip. *Chicago Linguistic Society*, 7, 394-415.
- Givón, T. (1984). *Syntax: A functional-typological introduction* (Vol. 1). Philadelphia: Benjamins.
- Givón, T. (1987). Beyond foreground and background. In R. S. Tomlin (Ed.), *Coherence and grounding in discourse* (175-188). Philadelphia: Benjamins.
- Haiman, J. (1994). Ritualization and the development of language. In W. Pagliuca (Ed.), *Perspectives on Grammaticalization* (pp. 3-28). Amsterdam: Benjamins.
- Heine, B. (2003). Grammaticalization. In B. D. Joseph & R. D. Janda (Eds.), *The handbook of historical linguistics* (pp. 575-601). New York: Blackwell.
- Hopper, P. (1979). Aspect and foregrounding in discourse. In T. Givón (Ed.), *Syntax and semantics: Discourse and syntax* (pp. 213-241). New York: Academic Press.
- Hopper, P., & Thompson, S. (1980). Transitivity in grammar and discourse. *Language*, 56, 251-299.
- Hopper, P., & Thompson, S. (1984). The discourse basis for lexical categories in universal grammar. *Language*, 60, 703-652.
- Hopper, P., & Traugott, E. C. (2003). *Grammaticalization* (2nd ed.). New York: Cambridge University Press.
- Ingram, D. (1989). *First language acquisition. Method, description and explanation*. New York: Cambridge University Press.
- Klein, W. (1994). Learning how to express temporality in a second language. In A. Giacalone Ramat & M. Vedovelli (Eds.), *Italiano lingua seconda/lingua straniera. Atti del XXVI Congresso della società di linguistica italiana* (pp. 227-248). Rome: Bulzoni.
- Mas, M., Melcion, J., Rosanas, R., & Vergés, M. H. (1991). *Curs de català per a estrangers: Diguí Diguí*. Barcelona, Spain: Publicacions de l'Abadia de Montserrat.
- Meisel, J. (1987). Reference to past events and actions in the development of natural language acquisition. In C. W. Pfaff (Ed.), *First and second language acquisition processes* (pp. 206-224). Cambridge, MA: Newbury House.
- Noyau, C. (1990). The development of means for temporality in the unguided acquisition of L2: Cross-linguistic perspectives. In H. W. Dechert (Ed.), *Current trends in European second language acquisition research* (pp. 143-170). Philadelphia: Multilingual Matters.

- Noyau, C. (2002). Temporal relations in learner varieties: Grammaticalization and discourse construction. In R. Salaberry & Y. Shirai (Eds.), *The L2 acquisition of tense-aspect morphology* (pp. 107-128). Philadelphia: Benjamins.
- Pérez Saldanya, M. (1998). *Del llatí al català. Morfosintaxi verbal històrica*. Valencia, Spain: Universitat de València.
- Reinhart, T. (1984). Principles of gestalt perception in the temporal organization of narrative texts. *Linguistics*, 22, 779-809.
- Robinson, P. (2003). Attention and memory during SLA. In C. J. Doughty & M. Long (Eds.), *The handbook of second language acquisition* (pp. 631-678). New York: Blackwell.
- Salaberry, R., & Shirai, Y. (2002). *The L2 acquisition of tense-aspect morphology*. Philadelphia: Benjamins.
- Sato, C. (1986). Conversation and interlanguage development: Rethinking the connection. In R. Day (Ed.), *Talking to learn* (pp. 23-45). Rowley, MA: Newbury House.
- Slobin, D. (1994). Talking perfectly. Discourse origins of the present perfect. In W. Pagliuca (Ed.), *Perspectives on grammaticalization* (pp. 119-133). Amsterdam: Benjamins.
- Slobin, D. (2002). Language evolution, acquisition and diachrony: Probing the parallels. In Givón, T., & Malle, B. F. (Eds.), *The evolution of language out of pre-language* (pp. 375-392). Amsterdam: Benjamins.
- Slobin, D. (in press). From ontogenesis to phylogenesis: What can child language tell us about language evolution? In J. Langer, S. T. Parker, & C. Milbrath (Eds.), *Biology and knowledge revisited: From neurogenesis to psychogenesis*. Mahwah, NJ: Erlbaum.
- Vinyes, J., & Rifà, F. (1986). *La llegenda de Sant Jordi*. Barcelona, Spain: La Galera.
- von Stutterheim, C. (1991). Narrative and description: Temporal reference in second language acquisition. In T. Huebner & C. A. Ferguson (Eds.), *Crosscurrents in second language acquisition and linguistic theories* (pp. 385-403). Philadelphia: Benjamins.
- von Stutterheim, C., & Klein, W. (1987). A concept-oriented approach to second language studies. In C. W. Pfaff (Ed.), *First and second language acquisition processes* (pp. 191-205). Cambridge, MA: Newbury House.
- Ziegeler, D. (1997). Retention in ontogenetic and diachronic grammaticalization. *Cognitive Linguistics* 8, 207-241.

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